

**BEFORE THE  
FEDERAL COMMUNICATIONS COMMISSION  
WASHINGTON, D.C. 20554**

In the Matter of	)	
	)	CG Docket No. 17-59
Advanced Methods to Target and Eliminate	)	
Unlawful Robocalls	)	FCC 17-24
	)	

**Comments of Noble Systems Corporation**

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**I. Summary**

Noble Systems Corporation (“Noble Systems”) respectfully submits these comments in response to the Federal Communications Commission’s (“FCC”) above-cited combined Notice of Proposed Rulemaking (“NPRM”) and Notice of Inquiry (“NOI”) regarding the imposition of rules allowing carriers to block calls based on specific circumstances involving the calling party number.

Noble Systems recognizes the problem of illegal calls has warranted, and continues to warrant, attention both by industry and regulators and that clarity is needed in defining which calls are illegal and may be blocked. Noble Systems also continues to object to the FCC’s usage of the term “robocall,” as this term has different meanings among different groups, and cannot be redefined at this point without causing further confusion. For instance, the FCC has defined the term “robocall” differently in various proceedings involving call blocking and as a result, has furthered the confusion as to which calls are to be the focus of call blocking. The FCC is better served using precise terms and using them in a consistent manner.

As to specific issues raised in the NPRM, Noble Systems sees no legitimate reason why voice calls should use a calling party number where: 1) the calling party number is an invalid North American Numbering Plan (“NANP”) number, 2) the calling party number is an unallocated NANP number, 3) the calling party number is an unassigned NANP number, and 4) 1) the subscriber allocated the calling party number has requested blocking of any calls using that calling party number. However, fundamental questions arise as to whether and how the FCC intends to regulate this capability. Noble Systems is concerned that the development of one or more short-term solutions addressing certain types of illegal calls may detract from a ubiquitous long-term solution that addresses a number of different types of illegal calls. Development of multiple solutions may duplicate industry efforts and be less effective in the long run as compared deploying a single, long-term solution. Furthermore, without a precise understanding of what calls are the focus of the current NPRM, any infrastructure solutions implemented for blocking illegal calls have the potential of blocking legitimate calls.

In regard to the NOI, Noble Systems believes a long-term approach for facilitating trace-back of calls, based on the SHAKEN & STIR technology is the most promising solution for reducing illegal calls. This technology has the potential for mitigating other types of illegal calls as well.

Accordingly, the FCC should consider whether deployment of a call trace-back capability using the SHAKEN & STIR technology would, by itself, reduce the problem of illegal calls without requiring a separate, inter-carrier, call blocking infrastructure.

**II. The Focus of Which Calls Are To Be Blocked Is Made Unclear By Using the Term “Robocalls”**

Noble Systems does not debate that there is a large and growing problem of illegal calls, many of which involve scams or illegal telemarketing solicitations. In many instances, a few bad actors can generate literally millions of illegal calls. Witness, for example, the FCC’s recent efforts to shut down a Florida based-telemarketer that originated 96 million telephone calls in just the last three months of 2016. The calls allegedly “spoofed” numbers for purposes of fraudulently selling timeshares.<sup>1</sup> On the other hand, a call made by an automatic telephone dialing system (“ATDS”) to a wireless number, which has been reassigned to a new wireless subscriber, is also considered an illegal call.<sup>2</sup> Yet, these are different types of illegal calls representing different problems with respect to scope, consumer impact, and the associated infrastructure solutions.

The FCC requests input on the scope of the term “illegal robocall.”<sup>3</sup> Noble Systems continues to object to the FCC’s usage of the term “robocall” because that term has a negative connotation and the term is unclear because it has different meanings to different groups. Indeed, this term even has different meanings within different FCC proceedings. The FCC tentatively concludes in this NPRM “that an “illegal robocall” is one that violates the requirements of the TCPA, the related Commission regulations implementing the Act, or the Telemarketing Sales Rule, as well as any call made for the purpose of defrauding a consumer, as prohibited under a variety of federal and state laws and regulations, including the federal Truth in Caller ID Act.”<sup>4</sup> Use of this term and this definition is problematic at its very core, and using this term will only promulgate confusion. Noble Systems believes that the FCC should simply focus on blocking “illegal calls.”

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<sup>1</sup> <https://www.fcc.gov/document/fcc-proposes-120-million-fine-massive-caller-id-spoofing-operation>.

<sup>2</sup> While there is no liability under the FCC regulations for the first call, the call is nevertheless a violation under the FCC’s interpretation of the TCPA. Liability accrues based on the second call, under current FCC regulations.

<sup>3</sup> NPRM, par. 13. (Note, as published in the Federal Register, this would be found in paragraph 5.)

<sup>4</sup> NPRM, par. 13.

A separate, but closely related question is how to treat “presumptively illegal calls” and on what basis these calls should be labeled as “presumptively illegal.” These distinctions are often lost by using the term “robocall”, which some presume encompasses all types of presumptively illegal calls and even unwanted legal calls.

First of all, in regard to this proposed definition, the FCC is fully aware of the uncertainty and disagreement in the industry as to which calls are subject to the TCPA based on the FCC’s interpretation of the statutory definition of an automatic telephone dialing system (“ATDS”). There is a pending appeal regarding the FCC’s interpretation of the statutory definition of an ATDS based on the requisite “capacity” of the equipment originating the calls to incorporate a random or sequential number generator.<sup>5</sup> As a consequence, uncertainty exists as to whether such a call is a “robocall” based on the “capacity” of the equipment used to originate the call. Thus, certainty is first needed as to the scope of an ATDS so that calls can be properly classified.

Second, the FCC’s proposed definition implies that a non-ATDS originated call, even if manually dialed, which violates the do-not-call list or allowable calling window of the Telemarketing Sales Rule, is also an “illegal robocall.” That implicitly proposes to expand the scope of a “robocall” in a manner that is not generally accepted by the industry and causes further confusion.

Third, the FCC’s proposed definition is a different definition of that term from prior proceedings and is proposed only for the context of the current NPRM. This new definition also implies that if the call attempts to defraud a consumer based on a *state* law or regulation, then that call is also an “illegal robocall.” Thus, the FCC appears to be extending its reach to regulate calls based on state law. Accordingly, usage of this definition of “robocall” begs clarification of the following statement by the FCC in the NPRM:

The Telephone Consumer Protection Act of 1991 (TCPA), as codified in section 227(b)(2) of the Act, also states that the Commission “shall prescribe regulations to implement” the TCPA’s restrictions on robocalls in subsection 227(b) of the Act. (NPRM, par. 4.)

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<sup>5</sup> *ACA International v. FCC*, 15-1211, D.C. Circuit (2015).

It is presumed that the FCC does not now intend to assert that the TCPA grants it authority to implement regulations “on robocalls” based on those calls violating *state* law. Rather, usage of “robocalls” in this portion of the NPRM appears to be *prima facie* evidence that the FCC is using different definitions of “robocall” within the same document. The FCC used a different definition of the term “robocall” in other proceedings. Specifically, in the FCC’s July 2015 Order, the FCC defined “the term ‘robocalls’ to include calls made with an automatic telephone dialing system (“autodialer”) or with a prerecorded or artificial voice.”<sup>6</sup> That definition did not extend the scope to the other calls as proposed in the current NPRM. Clarification is sought as to whether the FCC is now extending the scope of the definition of “robocalls.”

As a result of the usage of the term “robocall,” a fundamental basic question remains unanswered. If the FCC has defined in the past that text calls initiated by an ATDS are covered by the TCPA, then are text calls also considered as “robocalls” for purpose of the NPRM? The scope of the NPRM and NOI appear to focus on solely voice calls. Consequently, it is unclear whether the scope of the NPRM was intended to apply to blocking text calls as well. Clarification is sought from the FCC on this point as well.

Finally, if the FCC adopts the proposed definition of “illegal robocalls” in this proceeding, it will adopt a different definition of that term relative to what it has already adopted in other Orders.<sup>7</sup> Using the same term with different definitions in different proceedings will only add to the confusion that already exists, and will only promulgate further confusion when the term is used in the future. Will future references to “robocall” indicate which definition is controlling?

Noble Systems advocates that the FCC should simply focus on regulating illegal voice calls only, and not text calls. For purposes of the NPRM/NOI, an “illegal voice call” can be defined as “a voice call that violates the requirements of the TCPA, the related Commission regulations implementing the Act, or the Telemarketing Sales Rule, as well as any voice call made for the purpose of defrauding a consumer, as prohibited under a variety of federal laws and regulations, including the federal Truth in Caller ID Act.” Noble Systems agrees that as described in the NPRM, that absent any legitimate application identified by the industry, voice calls that originate

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<sup>6</sup> *Rules and Regulations Implementing the Telephone Consumer Protection Act of 1991*, Declaratory Ruling and Order, CG Docket No. 02-278, WC Docket No. 07-135, FCC 15-72, ¶ 152 (Jul. 10, 2015), footnote 1.

<sup>7</sup> See, e.g., footnote 6.

using an 1) unassigned, 2) invalid), or 3) unallocated NANP may be classified as illegal calls.<sup>8</sup> Similarly, voice calls may be presumed illegal if they use a calling party telephone number that the subscriber of that number has not authorized others to use for outgoing calls (referred to herein as “unauthorized” usage of a calling party number).

Noble Systems is concerned that other criteria may be used to label a call as “presumptively illegal” resulting in legal calls being blocked. Using the broad label of “robocalls” does not clarify the situation or intent of whether legal calls are intended to be included. In this proceeding, the FCC has identified four types of illegal calls, which include those using calling party numbers that are 1) invalid, 2) unallocated, 3) unassigned, and 4) unauthorized. With this level of precision, a better understanding of the FCC’s intent is obtained with respect to what calls are encompassed by the NOI.

The confusion of whether a call is illegal is compounded by using other terms found in the common vernacular, but which for regulatory purposes are imprecise. For example, the FCC implies that calls using a “spoofed number” are illegal. The NPRM states:

Here, the Commission believes that blocking a call from a spoofed number is not, by definition, an unjust or unreasonable practice or unjustly or unreasonably discriminatory practice, and the Commission invokes authority stemming from sections 201 and 202 of the Act in making that determination. (NPRM, par. 12.)

It is presumed that the initial word “Here” is included to qualify that the FCC is referring to the specific instances of calls, namely only those calls using calling party numbers that are 1) invalid, 2) unallocated, 3) unassigned, and 4) unauthorized. These calls should be blocked, not because they use a “spoofed number”, but because they are illegal calls based on using unauthorized, unassigned, unallocated, or invalid telephone numbers. There are various beneficial and useful applications where calls may originate using an authorized calling party number, even

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<sup>8</sup> Noble Systems believe is it more accurate to refer to “calls using a number” as opposed to “originating from a number. While telephone systems used to associate a telephone number with a line, and thus calls originating from that line were said to “originate from that number”, that terminology is no longer descriptive of modern VoIP systems.

though that number is not allocated to the call originator. This confusion exists because the FCC is again using a term (“spoofed”) that has different meanings to different groups.

For example, it is unclear whether a call using a “spoofed number” encompasses both authorized and unauthorized instances of calls using that calling party number, or just unauthorized instances.<sup>9</sup> There are a numerous examples of authorized uses of a calling party number that should not be blocked nor treated as an illegal call *per se*. It is unclear whether the FCC considers authorized instances of using a telephone number to be spoofing and within the scope of call blocking efforts. If so, Noble Systems considers blocking authorized uses of the calling party number to be unreasonable and unjust.

This issue is not intended to be simply an exercise in nomenclature, but an attempt to encourage the FCC to more precisely state the scope of its regulations and intentions. For example, does the FCC consider instances of the authorized use of a calling party number, by a different entity from that assigned the number, subject to call blocking because such a call may potentially be an illegal call? Or does the FCC only consider unauthorized usage of a calling party number to be an illegal call? Noble Systems believes that unauthorized use of a calling party number needs to be considered separately from the authorized use of the number and that authorized uses of the calling party number should not be subject to blocking. It is unclear whether the FCC shares this same perspective when it broadly refers to “spoofing.”

### **III. The Tension Between Different Solutions**

The NPRM does not mandate any particular solution for blocking illegal calls using an invalid, unassigned, unallocated, or unauthorized calling party number. Each type of illegal call may warrant a different solution. For example, the identification of invalid telephone numbers (i.e., non-NANP conforming numbers) may be performed algorithmically at each node processing the call without requiring a central database. On the other hand, the identification of unallocated numbers can be done in various ways, such as populating tables of unallocated numbers on a periodic basis. However, the identification of unassigned and unauthorized numbers likely requires

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<sup>9</sup>The FCC states ““Spoofing” occurs when a caller deliberately falsifies the information transmitted to your caller ID display to disguise their identity.” (<https://www.fcc.gov/consumers/guides/spoofing-and-caller-id>)

maintaining a database, either centralized or distributed, that can be accessed and updated in real time. This is sometimes referred to as establishing a “black list” database of numbers that should not be used in call origination.

However, establishing an industry-wide infrastructure (for inter-carrier applications) to populate, administer, regulate, and use such a database(s) to store prohibited numbers is no small task.<sup>10</sup> Significant industry resources would be required to deploy a nationwide infrastructure for maintaining a “black list” database that is queried by service providers for unassigned and unauthorized calling party numbers.<sup>11</sup>

However, similar scams have been reported where fraudsters use, e.g., a local law enforcement telephone numbers, which numbers cannot be put on the “black list” because the number is also used for outgoing calls by the local law enforcement officers. Consequently, such an infrastructure would not be useful for blocking these types of illegal calls. Thus, while blocking unauthorized number may stop some of the current illegal calls, fraudsters would simply select and use other numbers.<sup>12</sup> Some fraudsters will even copy the dialed number as the calling party number, so that the called party is under the impression they are calling themselves! Obviously, the called party would be hesitant to report their own number for inclusion in a “blacklist” database, since they would result in blocking their outgoing calls.

Any solution for blocking illegal calls in the short term needs to consider the long-term solution identified by the FCC’s Robocall Strike Force for attesting to the calling party number of a call at its point of origin. This is the so-called “SHAKEN & STIR” (“S&S”) technology. This technology has the potential benefit of, *inter alia*, facilitating accurate trace-back of a call to the

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<sup>10</sup> For example, the TCPA statute passed in 1991 identified the need to address a federal DNC list, but the national DNC registry was not established until 2003.

<sup>11</sup> It is unclear whether service providers would want to even use such an infrastructure solutions for unassigned numbers, as this would potentially convey competitive business information.

<sup>12</sup> In regard to the illegal telemarketing scheme referenced above (see, footnote 1), the FCC reported that the calls indicated a spoofed calling party number wherein “each calling number matched the area code (first three digits) and the central office code (second three digits) of the called number.” (FCC DA 17-593, par. 10.)



call originator. A separate issue is whether such calls that cannot be authenticated should be blocked in real-time, for which the FCC seeks input.<sup>13</sup>

The deployment of S&S technology provides the capability to “trace-back” a call to its originator, which is currently not readily feasible. A trace-back capability would impact the viability of fraudsters to set up boiler rooms originating millions of calls, because they rely on this anonymity. Theoretically, using S&S technology, such calls could be identified, reported and trace-backed to their origination point in short order. Then, the question becomes how fast can regulatory/law enforcement act upon this information. Presumably, a regulatory or law enforcement agency could obtain a preliminary injunction mandating cessation all such calls or otherwise enlist the cooperation of carriers to block such calls at the point of origin or entry into the U.S. at an international gateway.

The certainty of being able to quickly trace such calls would by itself discourage many fraudsters, since their ability to operate is contingent on the difficulty in tracing their calls. These bad actors represent a large percentage of the illegal calls that plague consumers. In summary, deployment of the S&S technology may significantly reduce the volume of illegal calls and this raises the question of whether other, less flexible methods should be deployed or will even be needed.

In addition, an infrastructure based on S&S technology could be used for other purposes. For example, such an infrastructure could be used by law enforcement to quickly identify individuals or enterprises originating other types of illegal calls. Specifically, S&S technology could be used by law enforcement to trace-back bomb threats, so-called “swatting” calls, and other types of reported illegal calls.<sup>14</sup> On the other hand, deployment of a “black list” database infrastructure for blocking unauthorized and unassigned numbers would not be useful for these

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<sup>13</sup> NPRM, par. 32. Noble Systems believes that it does not need to be decided now whether S&S technology should be used for blocking calls, as deployment of that technology using the trace back capability may be sufficient to address the problem of illegal calls.

<sup>14</sup> “Swatting” refers to the practice of using a false calling party number to call E911 and report a hostage situation, resulting in police sending SWAT teams to the address associated with the false calling party number.

purposes. It is not clear at this time whether deployment of a ‘black list’ data base infrastructure would be any less expensive or faster relative to deploying the S&S technology infrastructure.<sup>15</sup>

So, a fundamental question that the FCC should address is: How does the deployment of a long-term authentication solution impact the need and viability of other solutions for blocking illegal calls? Encouraging large carriers to support one particular technological solution, such as a large nationwide “black list” database is a significant cost that could be rendered obsolete by the investment of another solution, namely the S&S technology infrastructure.

At the moment, deployment of S&S technology appears to be a viable, long-term solution that can serve various purposes.<sup>16</sup> The utility of this solution appears to be predicated on its wide scale adoption, and this solution has the potential of mooted the need for the various other blocking solutions being discussed. In fact, the ability alone to perform trace-back on a call may avoid the need for carrier-based call blocking technologies for illegal calls.

#### **IV. Comments to Proposed Rules**

Comments to the language of the Proposed Rules are provided in an Appendix hereto, with explanation of the proposed changes.

In addition, Noble Systems urges the FCC to mandate that if a carrier does block a voice call, then the cause code used by the signaling from the blocking service provider rejecting the call accurately reflects the call was not offered to the remote party’s interface.<sup>17</sup> It is vitally important to indicate to the originating party that the call was blocked, as opposed to returning a “busy” or no-answer indication (which preliminary testing suggests some carriers are reporting when a call is blocked). The originating entity may be a contact center and if informed the called party is busy, it likely will repeatedly reattempt call origination to that number, frequently several times a day over a number of days, on the assumption the called party is busy. If the originating entity is instead

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<sup>15</sup> The deployment time for the DNC database (see, footnote 10) suggests deployment of a national database may not be any faster than deploying the S&S technology infrastructure.

<sup>16</sup> Nevertheless, caution is required to ensure that the S&S technology is not used in an anti-competitive basis.

<sup>17</sup> For example, ISDN and SS7 define cause codes used to indicate why a call was rejected, including for example cause code #46, “Precedence Call Blocked.” Similar codes (referred to as “error codes”) could be defined in a VoIP network using SIP signaling.

informed the call has been blocked, then it will not further attempt additional calls. Indicating an accurate cause code in the call rejection as to why the call was rejected avoids wasting network resources, avoids creating unnecessary additional traffic, and avoids potential adverse impacts to inter-carrier compensation for calls which never complete.

To that extent, language is proposed for the Proposed Rules that “Any call blocked by a service provider should indicate to the calling party that the call was blocked by the service provider as opposed to indicating the call reached a busy condition or was otherwise offered to the called party.” This information may be indicated by sending an appropriate cause code, special information tone, and/or an intercept announcement.

## **V. Conclusion**

The call types identified by the FCC in the NPRM/NOI consisting of calls using invalid, unassigned, unallocated, and unauthorized calling party numbers may be reasonably classified as illegal calls. No short-term network wide infrastructure solution should be mandated by the FCC at this time. Noble Systems believes that a long-term infrastructure solution for providing trace-back of calls, even without blocking, promises to be an effective, initial solution to addressing all types of illegal calls.

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**Appendix I - Modification to the Text of the Proposed Rules**

Noble Systems proposed the following modifications to the language to the Proposed Rules. A summary of the reasoning of the modifications are provided below.

1. Only voice calls may be blocked. If § 64.1200 is amended as suggested below, then it is not necessary to also amend Subpart V. Hence, no amendments are suggested for Subpart V to refer to “voice” calls.
2. Historically, the public switch telephone network associated a telephone number with a line, such that calls originating from that line could be said as originating “from that number.” With VoIP and similar technology, it is more accurate to state that calls originate “using that number” since they do not “originate from that number.” Hence, the suggested modification to § 64.1200 (k) (1).
3. International calls to the U.S. that originate outside the U.S. may use an originating number that is not a valid NANP number. Providers blocking incoming calls using an invalid NANP are presumably limited to blocking calls that originate in the U.S. using an invalid NANP number. If the intent is to allow carriers to block international incoming calls that use a non-NANP number, then the amendment is not needed, however it does not appear that this was the intent.
4. It is important for the service provider blocking the call to accurately indicate to the originating caller that the service provider has blocked the call and the call has not reached a busy condition. This can be done via signaling of a cause code or playing a special information tone, and/or intercept announcement.
5. It is unclear why blocked voice calls would not be subject to reporting requirements. Since inter-LATA compensation and other traffic planning aspects may potentially relate to call blocking, it would appear beneficial to retain some sort of records of such blocking.

PART 64—MISCELLANEOUS RULES RELATING TO COMMON CARRIERS

Subpart L—Restrictions on Telemarketing, Telephone Solicitation, and Facsimile Advertising

1. Amend § 64.1200 by adding paragraph (k) to read:

§ 64.1200 Delivery restrictions.

(k) Voice service providers may block voice calls so that they do not reach a called party as follows:

(1) Providers may block voice calls when the subscriber to which the originating number is assigned has requested that voice calls originating from that number be blocked. Voice calls ~~Calls~~ may be blocked based upon the originating number shown in the Caller ID without regard to whether the voice calls in fact ~~originate from~~ originated using that number.

(2) Providers may block voice calls originating ~~from~~ that use the following originating numbers:

(i) a voice call originating in the U.S. and directed to the U.S. using an originating number that is not a valid North American Numbering Plan number;

(ii) a valid North American Numbering Plan number that is not allocated to a provider by the North American Numbering Plan Administrator or the Pooling Administrator; and

(iii) a valid North American Numbering Plan number that is allocated to a provider by the North American Numbering Plan Administrator or Pooling Administrator, but is not assigned to a subscriber.

(3) For purposes of blocking voice calls based upon the originating number under this paragraph (k), a provider may rely on Caller ID information to determine the originating number.

**(4) Any call blocked by a service provider shall indicate to the originating caller that the call was blocked by the service provider as opposed to indicating the call reached a busy condition or was otherwise offered to the called party.**

Subpart V—Recording, Retention and Reporting of Data on Long-Distance Telephone Calls to Rural Areas and Reporting of Data on Long-Distance Telephone Calls to Nonrural Areas

1. Amend § 64.2103 by revising paragraph (e) to read:

(e) The following calls are excluded from these requirements:

(i) intraLATA toll calls carried entirely over the covered provider's network or handed off by the covered provider directly to the terminating local exchange carrier or directly to the tandem switch that the terminating local exchange carrier's end office subtends (terminating tandem); and

(ii) calls blocked pursuant to section 64.1200(k).

2. Amend § 64.2105 by revising paragraph (e) to read:

(e) The following calls are excluded from these requirements:

- (i) intraLATA toll calls carried entirely over the covered provider's network or handed off by the covered provider directly to the terminating local exchange carrier or directly to the tandem switch that the terminating local exchange carrier's end office subtends (terminating tandem); and
- (ii) calls blocked pursuant to section 64.1200(k).